



Mechatronics

AAS (60 SCH*)

*Semester Credit Hour 8/2020

First Semester - 15 SCH

CETT 1409 - DC-AC Circuits
PSYC 1300 - Learning Framework
ELMT 2333 - Industrial Electronics
ELPT 1221 - Introduction to Electrical Safety and Tools
MATH 2312 - Pre-Calculus Math

Second Semester - 15 SCH

CETT 1349 - Digital Systems
HYDR 1345 - Hydraulics and Pneumatics
INTC 1341 - Principles of Automatic Control
RBTC 1301 - Programmable Logic Controllers
RBTC 1351 - Robotic Mechanisms

Third Semester - 15 SCH

COSC 1301 - Introduction to Computing
ELMT 2337 - Electronic Troubleshooting, Service and Repair
ELPT 1351 - Electrical Machines
ELPT 2319 - Programmable Logic Controllers I
SPCH 1321 - Business & Professional Communication

Fourth Semester - 15 SCH

DRAM 1301 - Introduction to Theater
ELPT 2355 - Programmable Logic Controllers II
ENGL 1301 - Composition I
ENTC 1349 - Reliability and Maintainability
INMT 2345 - Industrial Troubleshooting

Marketable Skills

Math Skills; manage time and materials; acquire and evaluate information; interpret and communicate information; oral and written communications skills; computer skills; teamwork; cultural diversity; apply technology to work; creative thinking; decision making; problem solving; self-management; OSHA-General Industries; digital electronics; solid state devices; solid state circuits; microprocessors; linear integrated circuits; DC-AC circuits; fluid power; mechatronics tools and instruments; electronics devices, circuits, and systems used in automated manufacturing or process control; Electronic system maintenance, troubleshooting and repair; programmable logic controllers; mechanical, hydraulic, and pneumatic troubleshooting; installation, maintenance and repair of automatic control systems; installation, maintenance and repair of robotic mechanisms; installation, maintenance and repair of four bar linkages, cams, gears and gear trains.

Program Outcomes

Maintain equipment in an industrial setting including the use of Programmable Logic Controllers, Variable Frequency Drives, hydraulic and pneumatic systems, communications between systems and mechanical systems.

High School Endorsements

Business and Industry

Additional Educational Opportunities

Bachelor of Arts in Applied Science

Career Opportunities

Electronics technician; electromechanical technician; maintenance technician-electrical and mechanical; industrial electrician; industrial mechanic; robotics technician; wind turbine technician; field service technician; manufacturing systems technician; automation technician; process technician; power plant technician; fluid power technician; equipment technician; power tool repair technician; plant engineering systems technician; engineering technician.